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A case study of the procedures followed by a small liberal arts college in determining its long-range fiscal plans. The purpose of the presentation of the case study was to furnish a guide for colleges and universities in working out their own long-range plans. Indicates types of data needed, basis of projections made, and results obtained. Includes accounting worksheets covering a projected 10-year budget for educational and general items, instruction (in detail), operation and maintenance (in detail), scholarships, and plant.

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X. The Long Term Budget Projection — A New Management Tool for Colleges and Universities

. . . . . Sidney G. Tickton

For many years, industrial firms, merchandising organizations, and government agencies have made long-range projections of income and expenditures on which to base their policy decisions on production planning, sales programs, new plant construction, new debt commitments, etc. The merchandising of a new product for nationwide consumption, for example, may span a decade from the time the laboratory research has been completed until the sales promotion has placed the product in millions of homes. Commitments of time, money, and resources can be allocated by responsible corporate officials to a long-term program only after the detailed plans have been worked out, plans that take into account all factors likely to be relevant. Sometimes two or more assumptions are used to allow for possible variations in timing, prices, costs, the extent of the market, the availability of finances, and the like.

The building of a new highway, bridge, airport, or public utility is likewise preceded by a detailed projection into the future of the operating accounts, giving full effect to possible changes in economic, social, and environmental factors that may impinge on the outlook for receipts and expenditures. If the financing involves the issuance of securities, particularly revenue bonds, the projections are the work of appropriate specialists, are heavily documented, and may cover a time period of twenty to thirty years. They frequently become the entire basis upon which the project is organized, financed, and carried forth.

A less complicated example involving long-range projections of receipts and expenditures can be observed any day in the real estate field. Apartment houses, shopping centers, and office buildings are bought and sold on the basis of a probable income and expenditures analysis running from a few years to half a century ahead.

Although colleges and universities have long-range-planning problems similar to those of industry and trade, it is unusual for them to engage in long-range fiscal planning. Recently, a few small liberal arts colleges decided to work out a long-range-analysis technique built around their budgets. Their objective was to gain some financial perspective for the decade ahead, taking into account all their long-range commitments such as tenure, automatic-increase salary schedules, fringe-benefit arrangements with escalator clauses, and current

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maintenance on buildings to be constructed from funds provided by special gifts, campaigns, or borrowing, as well as rising prices and nationwide increases in the levels of faculty salaries.

These colleges recognized that institutions of higher education are not strictly business activities but that, on the financial side, their operations are certainly subject to business-type analysis. With the perspective provided by the projections, they were able to arrive at some new policy decisions on size of student body, faculty, building program and gift program, educational objectives of the college, and details of the curriculum, with the knowledge of what each individual decision meant to the operation of the college as a whole.

The purpose of this paper is to describe the process followed by one of these colleges, to indicate the types of data needed and the basis of the projections made, and to describe the results obtained. By using a technique similar to the one described, other colleges and universities can work out their own future pictures (in greater or lesser detail as their situations warrant) and can use organized data as a basis for new decisions on their future activities.

Another purpose of this paper is to indicate that the analysis process, although not difficult, requires considerable discipline; that is, the effect of every management decision on the budget, this year, next year, or for the entire period ahead, must be taken into account. One decision may involve a number of additional decisions; for example, a projection of the size of the student body requires related projections on the size of the faculty, the size of classes, number of courses, and space requirements. Precision of projection is not as essential as is the reasonableness of the estimates and the following through of the process at all points where there are budgetary consequences.

The management problems of colleges and universities will grow tremendously, both in size and in complexity, during the next few years. To meet these problems, top officials will need to sharpen old management tools and fashion new ones. The long-term budget projection is just such a new management tool.

We hasten to add, however, that the particular procedure described in this paper is only an example of an administrative technique which is in the early stages of development. Officials who prepare long-range projections for colleges and universities could be expected to improve the technique during the next few years and to incorporate for each college some amendments to reflect the needs of that particular institution. At some colleges and universities it might be necessary to set down a series of alternative assumptions and to run through the entire projection process a number of times before arriving at a series of figures which are both practical and desirable.

Description of the College

For the purposes of this case study, we shall call the institution that we are describing Ashford College. It is a four-year liberal arts college located on a 60-acre campus, in a town of 30,000 in the Midwest. Originally started in the 1830's and originally related to both Congregational and Prebyterian churches, the college is now a privately controlled institution accredited to the North Central Association. It offers B.A., B.Mus., and B.Mus.Ed. degrees.

There are 800 students, 64 per cent of whom are men. Ten per cent of the students are married. Of the students, 556 live on campus in college-owned properties, 150 live on campus in fraternity houses, and 94 are commuters and live at home. Seventy per cent of the students come from a radius of 300 miles, nearly all from middle- and upper-middle income families. Half of the students who enter Ashford do not stay for the entire four years. Drop-outs include many women who marry and some men who transfer to five-year programs in engineering and business administration, as well as some students who transfer to the state university for preprofessional courses.

Ashford's campus is surrounded by the town and has been protected in recent years by the purchase of adjoining properties, some of which have been demolished and others of which have been turned into college offices and residences. It will be necessary to buy additional adjoining property in future years. The college plant consists of three classroom and office buildings, two gymnasiums, a music building, a library with 85,000 volumes, observatory, infirmary, chapel, athletic field and dormitories. Laboratories, libraries, and classrooms are equipped primarily for the benefit of the student rather than for research.

Although a few of the buildings are relatively old, the plant is in first-class shape, and extraordinary maintenance is not a problem. The campus needs some new landscaping, and a new fine arts building is planned for 1962. Dormitories, dining halls, and student union facilities are used to capacity. An expansion of the college will require additional living quarters and recreation and eating facilities.

Classes meet five days a week, primarily between 9 A.M. and 4 P.M., and on Saturday morning. The school year runs from September 20 to June 5. Although there is no summer program, the college acts as host to a number of conferences during July and August, which permits it to employ its dormitory and dining hall staff on a year-round basis.

The college engages in intercollegiate athletics with neighboring institutions. There is a comprehensive intramural program; there is also an ROTC unit to which most of the men students belong.

The First Step: Background Data

As the first step toward the preparation of a long-term budget, Ashford's president asked the business manager to assemble some data on the operations and activities of the college for the past ten years. The information submitted is shown in Table 1.

The business manager found that nearly all the information requested was readily available from the books and records of the college. In setting down the student and faculty figures, he used the full-time equivalents averaged for the year. Faculty included those on leave with pay, excluded those on leave without pay. Physical education instructors were included, but ROTC officers were excluded, inasmuch as their salaries are not paid by the college. Fringe benefits included the college's contribution to its pension plan, social security, major medical insurance, and group life and health insurance.

The Second Step: Assumptions for the Future (United States as a Whole)

As a second step toward the preparation of a long-term budget for his college, Ashford's president, with the head of his economics department, worked out a number of basic assumptions about the character of the United States economy as a whole during the next ten years. Within this framework, he worked out with his dean some assumptions on the outlook for higher education. The objective was to improve the reliability of the calaculations by allowing for changes likely to occur in the environment in which the college would operate. The assumptions for the years 1959-70 were as follows:

1. The United States will be blessed with a high-employment economy without a war or other national disaster.

2. Prices can be expected to increase during the period, say, about one per cent each year on the average.

3. The number of students going to colleges and universities can be expected to double by the end of the period.

4. State universities, city colleges, and community and junior colleges will provide for a large share of the increased college enrollment.

5. There will be a substantially larger number of applicants for admission to private liberal arts colleges. These colleges will be able to select students of better than average academic ability. Parents of the students (except scholarship students) will be able and willing to pay an increasing tuition charge.

6. The large number of applicants to private liberal arts colleges and their willingness to pay increasing tuition will be made

Table 1. Historical Data on Ashford College
1949-59

Item	1948-49	1952-53	1957-58	1958-59
Data on Students and Faculty				
Number of students	834	775	759	800
Number of faculty	70	67	63	65
Student-faculty ratio	11.9:1	11.6:1	12:1	12.3:1
Average tuition per student	$ 470	$ 593	$ 806	$ 817
Total compensation of faculty:				
Salary	$ 262,374	$ 285,733	$ 355,111	$ 389,790
Fringe benefits	9,736	18,572	23,270	30,770
Average compensation of faculty:				
Salary	$ 3,748	$ 4,265	$ 5,637	$ 5,997
Fringe benefits	139	277	369	473
Data on endowment and gifts				
Amount of endowment (book value)	$2,914,300	$4,103,600	$4,472,800	$4,600,000
Total income from endowment	177,862	184,019	201,889	221,830
Rate of return (on book value)	6.10%	4.48%	4.51%	4.82%
Amount of gifts received:				
For endowment	$ 143,400	$ 57,200	$ 100,414	$ 100,000
For plant	---	---	30,000	40,000
For other uses	39,000	100,000	210,874	326,091
Data on educational plant and equipment				
Book value	$2,282,000	$3,295,000	$4,633,000	$4,650,000
Replacement value	---	---	---	4,150,000

Table 1. Historical Data on Ashford College
1949-59
(cont'd.)

Item	1948-49	1952-53	1957-58	1958-59
Data on Budget Income				
Educational and general:				
Student fees	$ 390,790	$ 417,418	$ 611,678	$ 653,870
Endowment income	137,920	147,868	161,676	150,525
Gifts	31,057	58,643	120,667	197,652
Organized activities	19,928	21,121	23,430	27,559
Other items	4,437	4,730	25,873	56,040
Subtotal, educational, and general	$ 584,132	$ 649,780	$ 943,324	$1,085,646
Auxiliary enterprises:				
Residences	$ 71,370	$ 92,766	$ 170,349	$ 192,000
Dining halls	175,942	175,658	173,361	225,000
Student union	---	21,019	32,082	36,000
Other	---	35,957	58,965	56,000
Subtotal, auxiliary enterprises	$ 247,312	$ 325,400	$ 434,757	$ 509,000
Student aid:				
Gifts and endowment	$ 23,174	$ 31,850	$ 122,420	$ 162,244
Other allocations to student aid	4,300	20,300	54,803	68,756
Subtotal, student aid	$ 27,474	$ 52,150	$ 177,223	$ 231,000
Total income	$ 858,918	$1,027,330	$1,555,304	$1,825,646

Table 1. Historical Data on Ashford College
1949-59
(cont'd.)

Item	1948-49	1952-53	1957-58	1958-59
Data on budget expenditure				
Educational and general:				
General administration	$ 53,549	$ 63,487	$ 86,437	$ 91,557
Student services	41,771	73,210	81,199	92,121
Public services	29,574	37,031	74,040	70,980
General institutional expense	10,456	29,028	56,107	94,674
Instructional expense	271,988	322,731	440,826	520,364
Organized activities	37,443	30,652	31,239	35,991
Library	31,358	33,305	43,917	44,587
Plant operation and maintenance	115,289	136,777	163,682	190,631
Subtotal, educational and general	$ 591,428	$ 726,221	$ 977,447	$1,140,905
Auxiliary enterprises:				
Residences	$ 59,583	$ 95,767	$ 170,349	$ 192,000
Dining halls	148,968	151,302	173,361	225,000
Student union	1,786	21,017	32,082	36,000
Other	---	35,957	58,965	56,000
Subtotal, auxiliary enterprises	$ 210,337	$ 304,043	$ 434,757	$ 509,000
Student aid:				
Scholarships	$ 26,875	$ 53,743	$ 173,421	$ 228,533
Fellowships and prizes	440	759	3,802	2,467
Subtotal, student aid	$ 27,315	$ 54,502	$ 177,223	$ 231,000
Total expenditure	$ 829,080	$1,084,766	$1,589,427	$1,880,905

possible by the high-employment condition of our national economy and by the feeling on the part of a sufficient number of parents that private liberal arts colleges will provide a superior education for their children.

7. Salaries of college faculty members will double, on the average, nationwide, during the next five to ten years as recommended by the President's Committee on Education Beyond the High School.

8. Although there will be a growing number of Federal and state scholarships for college students, they will constitute a minor percentage of the total number of scholarships necessary for higher education. Continued solicitation by all private colleges and universities of private gifts for scholarship purposes will be necessary throughout the period.

9. Long-term loans to private colleges will be available from the Federal government, state governments, or commercial sources for the construction of dormitories, dining halls, student unions, and other revenue-producing facilities. Private gifts will be required, however, to provide funds for the construction of classrooms, laboratories, libraries and other facilities from which direct revenue is not ordinarily obtained.

The Third Step: Assumptions for the Future (the College Itself)

As the third step toward the preparation of a long-term budget, Ashford's president, dean, and business manager worked out a number of basic assumptions that would be involved in a projection for ten years ahead. They were the following:

1. The purposes and objectives of the college will remain unchanged, that is, the college will continue to provide high-quality undergraduate education in the liberal arts for young men and women of better than average academic ability.

2. Teaching methods will remain essentially unchanged except for a greater emphasis on independent study and a larger number of student teaching assistants.

3. The college calendar will remain essentially unchanged.

4. Services to students will remain essentially unchanged.

5. The college will continue to be essentially residential in character. Increases in students over the present number will have to be accompanied by an expansion of dormitory or other living quarters.

6. Enrollment will grow approximately as follows:

1957-58	759	1960-61	975
1958-59	800	1961-62	1,100
1959-60	875	1962-63 and after	1,250

7. Enrollment by 1962-63 will consist of 60 per cent men, 40 per cent women, to be arrived at as follows:

	Men, per cent	Women, per cent
1958-59	64.3	35.7
1959-60	63.0	37.0
1960-61	62.0	38.0
1961-62	61.0	39.0
1962-63 and after	60.0	40.0

8. Upperclassmen (juniors and seniors) will comprise a growing proportion of the student body, increasing from 36.8 per cent in 1958-59 to 45.0 per cent by 1962-63. This will permit the filling up of the upper-class courses which are now under-populated. It will be achieved when necessary by working with a number of junior and community colleges, expanding scholarship grants to students at such colleges, etc.

9. The ROTC program will continue at the college, enrolling the same proportionate share of men students as heretofore.

10. The teaching faculty will grow approximately as follows:

1958-59	65	1961-62	78
1959-60	67	1962-63 and after	84
1960-61	73		

This growth takes into account the filling up of the upper classes, a trend away from small sections, and the expansion of independent study for average and above-average students. (The honors students already carry on a substantial volume of independent study but at high faculty-student cost ratio.)

11. Faculty salaries will double, on the average, between 1958 and 1968. The averages arrived at for each year (after some adjusting of the scale to make the totals balance out) were as follows:

1957-58	$ 5,637	1963-64	$ 9,190
1958-59	5,997	1964-65	9,650
1959-60	6,900	1965-66	10,133
1960-61	7,390	1966-67	10,640
1961-62	8,055	1967-68	11,172
1962-63	8,753		

12. Fringe benefits for the faculty (which at Ashford include TIAA pension program, group life and health insurance, major medical insurance, and social security) will grow from 6.5 per cent of salaries in 1957-58 to 15 3/4 per cent of salaries by 1963-64 and will continue at that level.

13. Sabbatical leaves will be provided to the extent of 1½ per cent of the faculty salary budget in 1960-61; 1 3/4 per cent in 1961-62; 2 per cent in 1962-63; 2¼ per cent in 1963-64, and 2½ per cent in 1964-65 and thereafter.

14. In the future the budget for the college will be divided into four parts as follows: (a) educational and general, (b) auxiliary enterprises, (c) scholarship, and (d) plant.

Educational and General Budget

15. The educational and general budget will be balanced each year, without gifts, starting in 1962-63. It will include the following items: (a) general administration, (b) student services, (c) public service and information, (d) general institutional expense, (e) instruction, (f) organized activities related to educational departments, (g) library, (h) operation and maintenance of physical plant, (i) depreciation reserve on educational plant and (j) contingency reserve.

16. The projection of general administration expense includes allowances for the addition of one secretary in the school year 1960 and one clerk in 1961. Student services include allowances for the addition of a full-time doctor in 1961, a dean of men in 1962, and one secretary in each of the years 1961, 1962, and 1963. Public service and information includes an additional person in each of the years 1960 and 1961. Library expenditures include the addition of one professional staff member in 1961.

17. The item for depreciation of educational plant will be based on estimated replacement value of buildings as listed in Table 2. These amounts will be transferred to a special fund to be used for repairs and remodeling of the plant and to repay the endowment funds for amounts invested in the plant.

18. The item for contingencies in the educational and general budget will amount to 3 per cent of expenditures for the fiscal year 1960-61 and 5 per cent of such expenditures thereafter.

19. The educational and general budget will be financed from the following sources of income: (a) tuition and fees, (b) endowment income (unrestricted), (c) income from organized activities, (d) miscellaneous income, (e) income from

administration of auxiliary enterprises, and (f) gifts and grants as follows:

165,000 in 1959-60;
$100,000 in 1960-61;
50,000 in 1961-62.

No gift money will be allocated to this budget in 1962-63 and thereafter.

20. Starting in 1962-63, the tuition will be computed by (a) estimating the total educational and general budget; (b) subtracting from this total the estimated unrestricted income from endowment, organized activities, and the miscellaneous sources shown above; and (c) dividing the remainder by the average number of students expected for the year.

Table 2.

Year	Estimated replacement value	Amount for depreciation	Rate, per cent
1959-60	$4,200,000	$ 22,500	0.535
1960-61	4,250,000	34,500	0.811
1961-62	4,300,000	43,000	1.00
1962-63	5,600,000	70,000	1.25
1963-64	5,650,000	84,000	1.49
1964-65	5,700,000	98,000	1.72
1965-66	5,800,000	140,000	2.41
1966-67	5,800,000	140,000	2.41
1967-68	5,800,000	140,000	2.41

Auxiliary Enterprises Budget

21. The auxiliary enterprises budget will cover income and expenditure of residence halls, dining halls, student union, book store. It will be balanced in all years after: (a) transferring book store and student union profits to scholarship fund (NOTE: The book store and student union will aim to make a 5 per cent net profit on operations after payment of all costs); (b) including an administrative charge amounting to 5 per cent of total operating income to cover the supervisory time of the business manager and the record-keeping function of his office; and (c) including a charge for amortization of borrowed funds, interest, repairs, and remodeling amounting to:

5 per cent of estimated replacement value in 1959-60
6 per cent of estimated replacement value in 1960-61
7 per cent of estimated replacement value in 1961-62
7½ per cent of estimated replacement value in 1962-63 and thereafter

NOTE: An amount equivalent to this charge will be transferred each year to the Auxiliary Enterprises Reserve Fund, from which costs of amortization and other expenses will be paid in whatever year they occur. This procedure will serve to smooth out the financial effect of repairs and remodeling operations over the years.

22. Auxiliary-enterprise services will be essentially the same in the future as in 1957-58. Student living quarters will be operated as a single unit, and uniform charges will be made for all rooms. Charges will be estimated on the basis of 95 per cent occupancy.

23. Student living quarters will be expanded only as enrollment actually increases. When dormitories are financed by borrowing (either from endowment funds, government sources, or the commercial market), they will be amortized over fifty years with interest on the unpaid balance.

Scholarship Budget

24. The college's objective will be to provide a total of scholarships and wages paid to students for on-campus employment equal to 25 to 30 per cent of the college's annual income from student tuition and fees in order to assure the desired composition of the student body.

25. The scholarship budget will include amounts allowed by the college for tuition, room, and board. It will exclude compensation for student employment. This will be paid to the student out of funds appropriated to the function he performs. It will also exclude loan funds (which are created at Ashford in the first instance from gifts or from government sources). Loans are expected to be recovered ultimately by the college and to be used again on a revolving-fund basis.

26. The scholarship budget will be self-balancing. It will be financed by current gifts and endowment income specifically earmarked for scholarships, state or Federal scholarship funds, if any, and profits from the operation of the book store and student union. Inasmuch as the scholarship budget will not be financed from other sources, special efforts will be made to build up scholarship funds. Loan funds will be built up, also. An extended payment plan financed by bank credit will be worked out as soon as possible.

Plant Budget

27. The plant budget will consist of expenditures for land, buildings, and major equipment. Minor equipment will be included in the educational and general budget.

28. The plant budget will be financed entirely from endowment income earmarked for plant, current gifts for plant, special campaign gifts for plant, and long-term loans for plant, if any are desirable and available.

29. The college will raise $1,300,000 for a fine arts building and construct it in 1962. This building will permit the college to expand art, music, and drama facilities which are now inadequate. There will be no other classroom buildings constructed between 1959 and 1969.

30. Better utilization of space will make it possible to expand Ashford's enrollment from 800 to 1,250 without increasing the educational plant beyond the addition of the fine arts building. It may be necessary, however, to schedule more classes in the late afternoon and some in the evening and to put classes regularly on a forty-four- instead of a thirty-eight-hour week. (NOTE: in this connection: Five evening classes were in operation in 1958-59 for the convenience of students who preferred more daytime hours for extracurricular activities and sports.)

Endowment Funds

31. Gifts and bequests to build up endowment funds will amount to $100,000 a year. The return on endowment investments will amount to approximately 4.8 per cent of book value per year throughout the period of the projection.

32. Four per cent interest will be paid on endowment funds invested in the educational plant.

The Fourth Step: Making the Ten-year Projection

In light of:
...The historical data about the college
...The assumptions for the future of the United States economy
...The assumptions for the future of higher education, generally
...The assumptions for the future of the college
which were now on hand, Ashford's president, dean, and business manager worked out the projection of the college budget for the decade ahead. At this point, the working time required for the preliminary calculations and discussion was just about two days.

The group found that the process involved making a number of initial guesses, following the trends indicated by historical figures, and then adjusting the projections subsequently in order to arrive at a proper balancing of the figures. The projections were worked out on both the income and expense side on four accounting work sheet schedules as follows:

A. Educational and general budget
B. Scholarship budget
C. Auxiliary enterprises budget
D. Plant budget

In some cases the details were not filled in; the broad picture was enough to work with. In other cases subsidiary tables were needed to assemble subtotals or additional working data. The four accounting work sheet schedules and two illustrative subsidiary tables are reproduced as an appendix to this paper. Table 3 picks up the main figures for 1959, 1963, and 1968 from the work sheets and emphasizes the four parts of the budget, each of which is balanced within itself.

A budget is a financial plan in which all the factors involved are inter-related to the extent that they involve money. Ashford's president found, in recapitulating the results, that changes in some of the critical factors in his college's future worked out as follows:

STUDENT-FACULTY RATIO

1958-59	12:1	1962-63	15:1
1960-61	13:1	1967-68	15:1

TUITION AND ROOM AND BOARD CHARGE PER STUDENT

	Tuition	Room and board	Total
1958-59	$ 817	$ 755	$1,572
1960-61	1,208	825	2,033
1962-63	1,450	875	2,325
1967-68	1,841	1,032	2,873

FACULTY COMPENSATION

	Average salary	Including fringe benefits
1958-59	$ 5,997	$ 6,470
1960-61	7,390	8,143
1962-63	8,753	10,038
1967-68	11,172	12,932

Table 3. Ten-year Budget Summary for Ashford College
(In thousands of dollars)

Expense items	1958-59	1962-63	1967-68	Income items	1958-59	1962-63	1967-68
Educational and General				Educational and General			
General administration	$ 92	$ 149	$ 168	Tuition and fees	$ 654	$1,813	$2,301
Student services	92	159	192	Endowment income	151	190	205
Public services	71	118	135	Gifts and grants	198	0	0
General institutional expense	95	102	112	Organized activities	28	34	35
Instructional expense	520	966	1,232	Miscellaneous income	56	29	32
Organized activities	36	45	48	Administration of auxiliary enterprises	0	45	60
Library	45	67	80	Operations deficit*	55	0	0
Operation and maintenance of educational plant	191	334	402				
Depreciation of reserve, educational plant	0	70	140				
Contingency	0	101	125				
Total, educational and general	$1,141	$2,111	$2,633	Total, educational and general	$1,141	$2,111	$2,633
Scholarships				Scholarships			
				Income earmarked for scholarships:			
				Book store and student union profits	$ 1	$ 9	$ 17
				Endowment	34	39	53
				Gifts	129	375	470
				Operating deficit*	67	0	0
Total, scholarships	$ 231	$ 423	$ 540	Total, scholarships	$ 231	$ 423	$ 540

Table 3. Ten-year Budget Summary for Ashford College (cont'd.)
(In thousands of dollars)

Expense items	1958-59	1962-63	1967-68	Income items	1958-59	1962-63	1967-68
Auxiliary Enterprises				Auxiliary Enterprises			
Residences and dining halls	$ 417	$ 743	$ 981	Room and board charges	$ 417	$ 743	$ 981
Book store and student union	92	152	184	Book store and student union	92	152	184
Total, auxiliary enterprises	$ 509	$ 895	$1,165	Total, auxiliary enterprises	$ 509	$ 895	$1,165
Plant				Plant			
Fine arts building	$ 0	$1,300	$ 0	Income earmarked for plant construction:			
Other buildings and grounds	50	10	50	Gifts	$ 40	$1,300	$ 40
				Endowment	10	10	10
Total, plant construction	$ 50	$1,310	$ 50	Total, plant construction	$ 50	$1,310	$ 50

*Covered by transfers from college's reserve funds.

UTILIZATION OF SPACE

	Per cent used	Basis, hours per week
1958-59	40	38
1967-68	65	44

PERCENTAGE CHANGES 1959-1968

Average tuition per student	+125%
Average compensation per faculty member, including benefits	+100%
Endowment income per student allocated to educational and general budget	- 13%
Gifts per student allocated to educational and general budget	-100%

Given these changes in critical factors, the necessary fund raising would be as shown in Table 4.

Table 4. Fund Raising Required
(In thousands of dollars)

Year	Educational and general budget	Scholarships	Endowments	Plant	Total
1958-59	$198	$128	$100	$ 40	$ 466
1960-61	100	285	100	40	525
1961-62	50	305	100	40	495
1962-63	0	375	100	1,300	1,775
1963-64	0	400	100	40	540
1967-68	0	470	100	40	610

Ashford's president found that the ten-year budget gave him a coordinated timetable. There was a detailed noting of actions to be taken for each segment of the college's life in each of a series of time periods. For example, the plan provided that for the school year 1962-63 as compared to 1961-62:

...The student body would increase by 150.
...The faculty would increase by six.
...The tuition and room and board would go up by $106, to $2,325.
...Faculty salary would go up by $698 to reach an average level of $8,753.
...Top faculty pay would go to $18,000.
...Fringe benefits would go up 2 per cent of pay to reach 14.7 per cent.

This meant that every decision or action taken by the board, the administration, or the faculty in 1959, and in subsequent years too, would have to be weighed against the objectives of the long-range plan. Did it fit into the plan, did it amend the plan, was it premature, or was it out of line?

The Fifth Step: What They Did about It

The ten-year budget projection set forth in summary fashion a preliminary and tentative plan for operating the college during the decade 1959-68. Although the possibilities of miscalculation were obvious, Ashford's president felt that he had, for the first time, a coordinated set of assumptions. From them he drew the following critical conclusions about the future of the college:

1. Ashford could balance its educational budget each year in the decade ahead.

2. Balancing the budget would mean that tuition would go up, but within the realm of possibility.

3. Budget balancing meant that the size of the college would grow, but not so large as to change the character of the college.

4. Budget balancing allowed for the doubling of faculty salaries, on the average, between 1958 and 1968.

5. Within this framework, Ashford could look forward to a top faculty salary of $18,000 to $20,000 within a few years, compared to $10,000 now.

6. The financial objectives could be achieved while maintaining first-class education objectives.

7. The student-teacher ratio would need to go no higher than 15:1.

8. If greater independent study were encouraged and some large lectures were introduced, the 15:1 ratio would allow adequate opportunity for all the necessary seminars and small discussion groups desired by the faculty, with a teaching load of no more than the present twelve hours per week.

In the light of these conclusions, Ashford's president submitted the ten-year budget to his trustees for discussion and study. At the succeeding annual meeting, the document was adopted as the basis of a program for action. It was clear to all, however, that the planning document would never be looked upon as a fixed, unchangeable blueprint for the next decade; it was, rather, a thoughtfully developed set of guide lines to be used in charting the course of the college's future.

One other point emerged from the meeting. The president and the trustees agreed that through the preparation and study of the long-range budget they had begun to realize for the first time how their college was really put together. They observed as they never had before:

...how a decision on one aspect of the college's activities controlled important decisions on another;
...how short-term commitments and expediency frequently determined the course of the college's long-run future;
...how the failure to consider long-range implications of today's decisions (because projections of the distant future were thought to be too speculative) could, in itself, subject the college to a host of substantial but unintended risks;
...how the mere postponing, for the time being, of a decision on a critical item could be of great and direct influence on future operating results.

They concluded that this dynamic technique could be of greatest use as a management tool only if the assumptions and figures were examined and constantly revised in the light of the social and economic changes occurring on the campus and in the country at large. They concluded also that long-range planning is a continuing job. The president put it this way:

> As our long-term objectives and our projections move toward us with time, they must be reassessed, readjusted, and re-evaluated. Meantime, of course, we must also be ready to push our projections further into the future in order to keep the guideposts visible ten or fifteen years away.

General Footnote on the Technique Described

For colleges other than the one described, it might be necessary to run through the procedure described above a number of times with alternative assumptions in order to arrive at a series of figures which would be practical and desirable at all points of the projection. A small college in the East with 300 students, for example, found that projections built around a prospective growth of 400 to 500 students by 1970 left it with either a large deficit or a salary scale that was too low. Successive projections involving 600 and then 700 students, with appropriate changes in assumptions, were necessary before the figures could be brought into balance.

For colleges other than the one described, it might also be necessary to develop detailed space-utilization projections to 1970, with estimates of number of class meetings correlated with the number of classrooms available. This would be essential, for example, at some of the city colleges where classroom space is already used from 8:00 A.M. to 10:00 P.M. five days a week and a half day on Saturday. Additional enrollments, in such cases, would require new space immediately.

There is one other point: To be most useful to college trustees (who examine college accounts and budgets rather infrequently), a long-range plan should be followed by a series of regularly scheduled progress reports. These should pick up the main figures (say, of the 1959 projection) and compare them with accomplishments in 1960 and 1961, as well as with the revised plans proposed for subsequent years. Reports of this type could well be attached to the annual budget as an appendix.

Accounting Worksheet A: Educational and General Budget 1958–68, Ashford College

Item	1957–58	1958–59	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Expense											
General administration	$ 86.437	$ 91.557	$ 116.054	$ 126.738	$ 139.960	$ 149.000	$ 153.185	$ 156.890	$ 160.375	$ 164.280	$ 167.975
Student services	81.199	92.121	97.319	121.311	145.566	159.166	165.556	172.000	178.595	185.110	191.525
Public service and information	74.040	70.980	86.443	99.750	109.400	118.175	121.500	124.800	128.200	131.550	134.900
General institutional expense	56.107	94.674	59.919	69.575	85.200	101.900	103.660	105.370	108.030	109.940	112.350
Instruction	440.826	520.364	605.398	696.828	811.960	966.056	1,021.685	1,071.902	1,122.384	1,174.655	1,231.745
Organized activity related to educational departments	31.239	35.991	39.120	41.000	42.000	45.000	45.300	46.000	46.500	47.000	47.300
Library	43.917	44.587	46.107	54.785	58.785	66.935	69.615	71.995	74.375	76.755	79.885
Operation and maintenance of physical plant	163.682	190.631	238.608	266.550	293.735	333.770	344.500	352.500	376.000	387.500	402.000
Educational plant rehabilitation and depreciation fund	0	0	22.500	34.500	43.000	70.000	84.000	98.000	140.000	140.000	140.000
Subtotal	$977.447	$1,140.905	$1,311.668	$1,511.037	$1,729.656	$2,010.002	$2,109.201	$2,199.617	$2,334.659	$2,416.790	$2,507.880
Contingency (1960–61, 3%; thereafter 5%)	0	0	29.396	45.331	86.483	100.500	105.460	109.981	116.733	120.840	125.394
Total expense	$977.447	$1,140.905	$1,341.064	$1,556.368	$1,816.149	$2,110.502	$2,214.661	$2,309.598	$2,451.392	$2,537.630	$2,633.274
Income											
Student fees	$611.678	$ 653.870	$ 910.050	$1,177.368	$1,478.149	$1,812,502	$1,905.661	$1,997.098	$2,130.392	$2,214.130	$2,301.274
Endowment income	161.676	150.525	180.737	185.000	187.000	190,000	195.000	195.000	200.000	200.000	205.000
Gifts and grants	120.667	197.652	165.000	100.000	50.000	0	0	0	0	0	0
Organized activities	23.430	27.559	27.910	30.000	32.000	34.000	34.000	35.000	35.000	35.000	35.000
Other sources	25.873	56.040	28.420	29.000	29.000	29.000	30.000	30.000	31.000	31.000	32.000
Administration of auxiliary enterprises	0	0	28.957	35.000	40.000	45.000	50.000	52.500	55.000	57.500	60.000
Total income	$943.324	$1,085.646	$1,341.064	$1,556.368	$1,816.149	$2,110.502	$2,214.661	$2,309.598	$2,451.392	$2,537.630	$2,633.274

Subschedule A-1: Budget for Instruction in Detail, 1958–68, Ashford College

Item	1958–59	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Salaries and benefits:										
Faculty salaries	$389,790	$462,337	$539,523	$628,273	$735,273	$ 772,039	$ 810,641	$ 851,173	$ 893,732	$ 938,418
Sabbatical leaves			8,093	10,995	14,705	17,371	20,266	21,279	22,143	23,460
Student assistants	7,694	10,000	14,000	16,000	20,000	21,000	22,000	23,000	24,000	25,000
Faculty benefits	30,770	37,400	54,952	78,032	107,978	121,473	127,555	133,932	139,780	147,867
Total	$428,254	$509,737	$616,568	$733,300	$877,956	$ 931,885	$ 980,462	$1,029,384	$1,079,655	$1,134,745
Departmental instructional allocation:										
Total	$ 30,266	$ 37,000	$ 45,000	$ 48,000	$ 50,000	$ 51,000	$ 52,000	$ 53,000	$ 54,000	$ 55,000
Other instructional expenses:										
Faculty candidates expense	$ 1,200	$ 2,000	$ 2,000	$ 3,000	$ 4,000					
Faculty research grants and publications	511	3,000	3,000	4,000	6,000					
Faculty traveling fund	1,000	1,300	1,300	2,500	4,000					
Faculty per diem travel expense	230	500	500	1,000	1,000					
Faculty seminar	10,000	10,000	0	0	0					
Miscellaneous instruction expense	1,000	1,000	1,000	1,200	1,500					
Faculty moving expense	2,700	8,000	7,000	8,000	9,000		Breakdown not estimated			
Faculty entertainment for students	100	150	150	200	300					
Chapel service expense	735	750	750	850	1,000					
Rental of Congregational church	910	910	910	910	1,000					
Adult education classes expense	0	0	0	0	0					
Duplicating	5,030	5,551	5,700	6,000	7,000					
Special grant 1	10,000	10,000	10,000	0	0					
Special grant 2	16,000	13,000	0	0	0					
Special grant 3	10,000	0	0	0	0					
Total	$ 59,416	$ 56,361	$ 32,510	$ 27,660	$ 34,800	$ 35,200	$ 35,600	$ 36,000	$ 36,500	$ 37,000
Summary:										
Salaries and benefits	$428,254	$509,737	$616,568	$733,300	$877,956	$ 931,885	$ 980,462	$1,029,384	$1,079,655	$1,134,745
Departmental instructional allocation	30,266	37,000	45,000	48,000	50,000	51,000	52,000	53,000	54,000	55,000
Other instructional expense	59,416	56,361	32,510	27,660	34,800	35,200	35,600	36,000	36,500	37,000
College examiner's office	2,428	2,481	2,750	3,000	3,300	3,600	3,800	4,000	4,300	5,000
Total	$520,364	$605,599	$696,828	$811,960	$966,056	$1,021,685	$1,071,862	$1,122,384	$1,174,655	$1,231,745

Subschedule A-2: Budget for Operation and Maintenance of Plant, in Detail, 1958–68, Ashford College

Item	1958–59	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Administration of buildings and grounds:										
Salaries	$ 10,215	$ 10,424	$ 11,400	$ 12,200	$ 13,000					
General expense	1,500	500	550	650	750		Breakdown not estimated			
Transportation and equipment	0	350	400	425	450					
Total	$ 11,715	$ 11,274	$ 12,350	$ 13,275	$ 14,200	$ 13,000	$ 15,750	$ 16,500	$ 17,250	$ 18,000
Custodians:										
Salaries	$ 59,621	$ 66,186	$ 72,500	$ 78,000	$ 92,000					
Student help	0	825	900	1,000	1,100					
Custodial supplies	4,500	4,000	4,400	4,700	5,000					
Laundry and cleaning	350	325	350	375	450		Breakdown not estimated			
Rodent and pest control	460	425	450	475	500					
Equipment and tools	0	1,100	2,000	2,100	2,200					
Campus police	750	2,200	2,500	2,600	2,700					
Total	$ 65,681	$ 75,061	$ 83,100	$ 89,250	$103,950	$106,000	$107,000	$120,000	$123,000	$127,000
Utilities and maintenance:										
Salaries	$ 11,865	$ 8,490	$ 9,300	$ 10,200	$ 11,200					
General utilities maintenance	4,000	2,750	3,000	4,000	5,000					
Water	1,500	1,400	1,600	1,800	2,000		Breakdown not estimated			
Electricity	17,600	17,300	18,000	20,000	22,000					
Equipment and tools	0	300	500	600	700					
Total	$ 34,965	$ 30,240	$ 32,400	$ 36,600	$ 40,900	$ 42,000	$ 43,000	$ 46,000	$ 48,000	$ 50,000
Heating and air conditioning:										
Salaries		$ 14,665	$ 16,000	$ 17,600	$ 18,300					
General maintenance expense		10,700	12,000	14,000	16,000					
Fuel for main plant	$ 19,000	22,000	23,000	24,000	25,000					
Fuel for other instructional buildings (gas)	600	1,600	1,800	2,000	2,200		Breakdown not estimated			
Water treatment	0	550	1,000	1,100	1,200					
Equipment and tools	0	150	300	400	500					
(Charge to Auxiliary Enterprises)	(13,800)	(13,800)	(13,800)	(13,800)	(13,800)					
Total	$ 5,800	$ 35,865	$ 40,300	$ 45,300	$ 49,400	$ 51,000	$ 52,500	$ 55,000	$ 56,500	$ 58,000
Campus maintenance:										
Salaries	$ 8,605	$ 6,513	$ 7,200	$ 8,000	$ 8,800					
Student help	750	750	800	1,000	1,200					
General expense and maintenance	3,450	3,400	4,000	4,500	5,000					
Arborists	2,100	2,100	2,300	2,400	2,500					
Equipment and maintenance	0	250	500	600	700		Breakdown not estimated			

Trees and shrubbery:										
Planting	0	200	1,000	2,000	3,000					
Spraying	0	700	1,000	1,250	1,500					
Gas and oil	0	300	500	600	700					
Equipment and tools	0	650	2,000	3,300	5,000					
Total	$ 14,905	$ 14,865	$ 19,300	$ 23,850	$ 28,400	$ 30,000	$ 31,000	$ 32,000	$ 33,000	$ 35,000
Building maintenance:										
Salaries	$ 27,870	$ 23,330	$ 26,000	$ 28,500	$ 36,000					
General building maintenance	16,015	0	0	0	0					
Science hall remodeling	0	2,000	0	0	0					
Furniture and fixtures: new, repairs, and renewals	3,780	5,800	10,000	12,500	15,000	Breakdown not estimated				
Surplus property	100	500	1,000	1,000	1,000					
Elevator maintenance contract	0	188	200	210	220					
Equipment and tools	0	460	1,000	1,500	2,000					
Total	$ 47,765	$ 32,278	$ 38,200	$ 43,710	$ 54,220	$ 57,500	$ 60,000	$ 63,000	$ 66,000	$ 70,000
General service and trucking:										
Maintenance of equipment	$ 0	$ 1,250	$ 1,400	$ 1,450	$ 1,500					
Insurance on institutional plant	5,800	6,000	6,500	7,000	7,500	Breakdown not estimated				
General trucking	4,000	2,250	2,500	2,700	3,000					
Equipment and tools	0	200	500	600	700					
Total	$ 9,800	$ 9,700	$ 10,900	$ 11,750	$ 12,700	$ 13,000	$ 13,250	$ 13,500	$ 13,750	$ 14,000
Interest on endowment at 4%	0	29,325	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Total operation and maintenance of physical plant	$190,631	$238,608	$266,350	$293,735	$333,770	$344,500	$352,500	$376,000	$387,500	$402,000

Accounting Worksheet B: Scholarship Budget, 1958–68, Ashford College

Item	1957–58	1958–59	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Income for scholarships:											
Endowment	$ 32,213	$ 33,805	$ 34,000	$ 34,000	$ 37,000	$ 39,000	$ 41,000	$ 44,000	$ 47,000	$ 50,000	$ 53,000
Gifts	90,207	128,439	274,000	285,000	305,000	375,000	400,000	430,000	450,000	460,000	470,000
Book store and student union	300	1,390	3,000	5,000	8,000	9,000	9,000	11,000	13,000	15,000	17,000
General college funds	54,503	67,366	0	0	0	0	0	0	0	0	0
Total	$177,223	$231,000	$311,000	$324,000	$350,000	$423,000	$450,000	$485,000	$510,000	$525,000	$540,000
Expenditures for scholarships	$177,223	$231,000	$311,000	$324,000	$350,000	$423,000	$450,000	$485,000	$510,000	$525,000	$540,000
Expenditures for student employment on campus	$ 37,317	$ 40,566	$ 45,000	$ 50,000	$ 55,000	$ 62,000	$ 65,000	$ 65,000	$ 70,000	$ 75,000	$ 80,000
Scholarship expenditures and student employment expenditures together:											
Amount	$214,540	$271,566	$356,000	$374,000	$405,000	$485,000	$515,000	$550,000	$580,000	$600,000	$620,000
Portion of tuition income, per cent	35	42	39	33	27	26	27	27	27	27	27

Accounting Worksheet C: Auxiliary Enterprises Budget, 1958–68, Ashford College

Item	1957–58	1958–59	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Factors entering into auxiliary enterprises budget											
Enrollment:											
Total	739	800	875	975	1,100	1,250	1,250	1,250	1,250	1,250	1,250
To house in dormitories	558	556	650	730	730	756	790	790	868	903	930
To feed in dining halls	433	550	630	680	780	920	950	950	950	950	950
Room charge	$ 305	$ 345	$ 350	$ 365	$ 400	$ 400	$ 400	$ 450	$ 470	$ 485	$ 492
Board charge	400	410	430	460	475	475	500	525	530	535	540
Total	$ 705	$ 755	$ 780	$ 825	$ 875	$ 875	$ 900	$ 975	$ 1,000	$ 1,020	$ 1,032
Income from auxiliaries											
Room and board	$343,710	$417,000	$498,500	$580,000	$661,500	$743,000	$799,333	$ 855,666	$ 912,000	$ 946,500	$ 981,000
Other	91,047	92,000	107,000	122,000	137,000	152,000	158,000	164,000	170,000	177,000	184,000
Total income	$434,757	$509,000	$605,500	$702,000	$798,500	$895,000	$957,333	$1,019,666	$1,082,000	$1,123,500	$1,165,000
*Expenditures for auxiliaries**											
Residence halls	$170,349	$192,000	$227,500	$267,000	$292,000	$305,000	$320,000	$ 355,666	$ 408,000	$ 438,500	$ 468,000
Dining halls	173,361	225,000	271,000	313,000	369,500	438,000	479,333	500,000	504,000	508,000	513,000
Other	91,047	92,000	107,000	122,000	137,000	152,000	158,000	164,000	170,000	177,000	184,000
Total expenditures	$434,757	$509,000	$605,500	$702,000	$798,500	$895,000	$957,333	$1,019,666	$1,082,000	$1,123,500	$1,165,000

* Includes charge for amortization of borrowed funds, interest, repairs and remodeling, an amount equivalent to which is transferred each year to the Auxiliary Enterprises Reserve Fund; includes also administrative charge equal to 5 per cent of operating income; includes also charge equal to book-store and student union profits, which are transferred to scholarship funds.

Accounting Worksheet D: Plant Budget, 1958–68, Ashford College

Item	1957–58	1958–59	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Source of Funds											
Gifts:											
Regular	$30,000	$40,000	$40,000	$40,000	$40,000	0	$40,000	$40,000	$40,000	$40,000	$40,000
Special campaign		0	0	0		$1,300,000					
Endowment income	8,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Total income	$38,000	$50,000	$50,000	$50,000	$50,000	$1,310,000	$50,000	$50,000	$50,000	$50,000	$50,000
Expenditures											
Fine arts building	0	0	0	0	0	$1,300,000					
Other land and buildings	$38,000	$50,000	$50,000	$50,000	$50,000	10,000	$50,000	$50,000	$50,000	$50,000	$50,000
Total expenditures	$38,000	$50,000	$50,000	$50,000	$50,000	$1,310,000	$50,000	$50,000	$50,000	$50,000	$50,000

NOTE: Fund raising or construction could be shifted from one year to another if necessary.